

X MARKS THE SPOT #12

By Lorraine A. Manz

The landforms marked with Xs are more commonly associated with the Desert Southwest and similar places than with the Northern Great Plains. That said, there are several locations around the state, mostly in the eastern half, where these landforms are common and are generally associated with glacial lake plains. Others are derived from older sediments but all were formed by the same natural process. When you have identified the features marked by the Xs, submit your name, mailing address, phone number or e-mail address, and responses to the following questions:

- 1) What are the landforms marked by the Xs?
- 2) By what natural process were they formed?
- 3) And for an honorable mention... Why are most of these features associated with glacial lake plains?

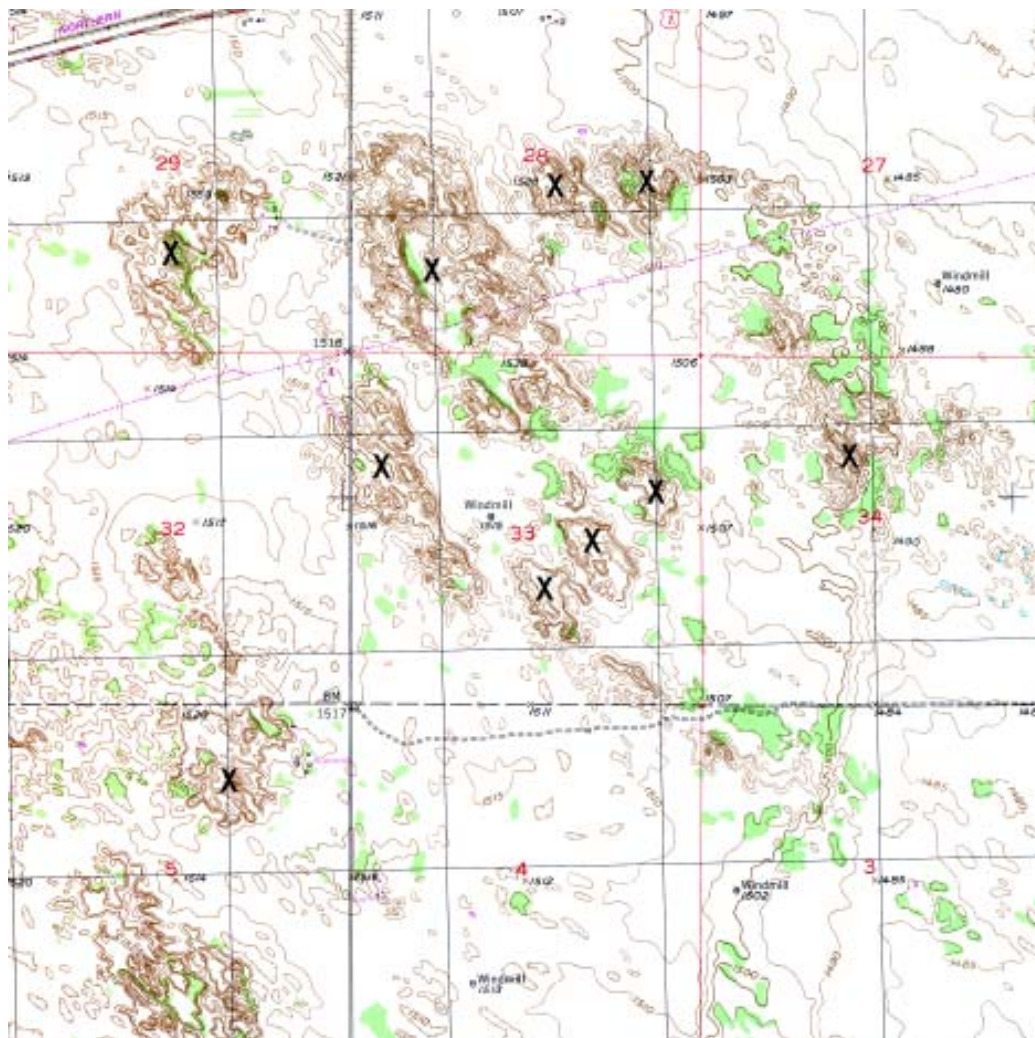
Respondents who provide the correct answers will be eligible for prizes. Two names will be randomly drawn from a winners' pool by NDGS staff. Winners will receive a copy of the *Face of North Dakota*.

Please submit responses by February 15, 2007. Winners of our drawing and the correct answers will appear on our web site shortly thereafter and in the next issue of the *DMR Newsletter*.

Answers submitted by mail should be sent to:
Editor, *DMR Newsletter*
Attn: Spot Contest
North Dakota Geological Survey
600 E. Boulevard Ave.
Bismarck, ND 58505-0840

Answers submitted by e-mail should be sent to:
ndgspubs@state.nd.us

To submit answers via the web, visit our homepage at <http://www.state.nd.us/ndgs> and select the link labeled "X Marks the Spot." Only one answer permitted per person. The contest is not open to employees of the Industrial Commission or members of their families.



Answer to X Marks the Spot #11

The 11th competition in the **X Marks the Spot** series drew correct responses from 20 people, who identified the location marked by the X as the site of the first producing oil well in North Dakota – Amerada Petroleum Corporation’s No. 1 Clarence Iverson Well near Tioga in Williams County. Anyone interested in visiting this site (fig. 1) will find it just east of County Road 21 about eight miles south of Tioga in the SW4 SW4 Sec. 6, T. 155 N., R. 95 W.



Figure 1. The granite monument, erected in October 1953, that marks the discovery site of oil in North Dakota on April 4, 1951.

Administrative Assistant Linda Johnson drew Terry Jorgenson and Judith Dinkins as the competition winners. Terry will receive a copy of *The Face of North Dakota* and Judith will receive a *Geologic Map of North Dakota*. Congratulations to the winners and thanks to everyone who participated in the competition.

Correct answers were submitted by:

Tam Black	Minot
Leonard Bornemann	Center
Ron Bosch	Wheatland, WY
Gary Brekke	Fargo
Judith Dinkins	Hazen
Ken Gardner	Drayton
Allen Jacobson	Tolley
Michael Johnson	
Terry Jorgenson	Eden Prairie, MN
Paul Meisel	Sawyer
John Mrozla	Harwood
Wes Peck	Grand Forks
Tonya Pomeroy	Fort Worth, TX
Ramsey family*	Crystal
Kenneth Schmidt	Ray
Allan Stolz	Minot
Dennis Tomhave	Vermillion, SD
Terry Traynor	

Larry Werner
Barrett Williams

Starkweather
Tucker, GA

* Ramsey family submitted one response as part of a collective effort.

Jerry Engel of Ray, North Dakota sent the photo (fig. 2) of a souvenir bottle of oil from the discovery well that was recently found in a box of glass jars purchased at an auction sale near Mobridge, SD. Coincidentally his son-in-law, who found the bottle, was reared about three miles east of the well and was consequently very pleased with his unexpected acquisition.



Figure 2. A souvenir bottle of oil from the No. 1 Clarence Iverson well.

Readers interested in learning more about the history and development of North Dakota’s oil industry are recommended the following publications:

Bluemle, J.P., 2001, The 50th Anniversary of the Discovery of Oil in North Dakota: North Dakota Geological Survey Miscellaneous Series 89, 57p.

Gonzalez, M.A., 2002, Black gold – the economics of oil in North Dakota: North Dakota Geological Survey Newsletter, v. 29, no. 1.

Gonzalez, M.A., Burke, R. B., and Diehl, P. E., 2003, Black gold: the role of the Geological Survey in the exploration, discovery, and development of oil prospects and their economic implications to North Dakota: North Dakota Geological Survey Educational Series 29. (This is a PowerPoint presentation that has been recorded on a CD. It is not available in paper).

Heck, T.J., LeFever, R.D., Fischer, D.W., and LeFever, J.A., 2002, Overview of the petroleum geology of the North Dakota Williston Basin: http://www.state.nd.us/ndgs/resources/wbpetroleum_h.htm.

Drilling and production statistics are available on the Oil and Gas Division web site at <http://www.oilgas.nd.gov/stats/statisticsvw.asp>.